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Analyzing Instructionally Focused Education Systems: Exploring the Coordinated Use of Complementary Frameworks

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ABSTRACT

Public school districts have been operating under a decade's long press to move beyond functioning as engines of access-oriented mass public schooling to functioning as instructionally focused education systems pursuing educational excellence and equity. This press has researchers developing analytic frameworks useful for examining different ways that districts are responding. Even so, limitations in individual frameworks suggest a need to explore the coordinate use of complementary frameworks to support more comprehensive examinations of districts. This analysis explores the coordinated use of a "coupling framework" and a "systems framework" to analyze efforts in two districts to improve educational quality and to reduce disparities. Findings suggests that the coordinated use of the coupling and systems frameworks supports deeper analyses of instructional organization and management than either framework would on its own, and that further incorporating quality and equity frameworks would support still-deeper analyses. From the perspective of this issue of the *Peabody Journal of Education* (PJE), the implication is that elaborating new institutional theory to capture micro-level variation in response to macro-level dynamics is but one challenge faced by organizational researchers in education, and that the deeper challenge lies in considering alternative world views—paradigmatic assumptions—underlying the use of singular and complementary analytic frameworks.

The purpose of this analysis is to consider approaches to organizational research that are responsive to the complexity of organizing and managing instruction in pursuit of excellence and equity. A common practice among organizational scholars seeking to understand dynamics within and among organizations is to use analytic frameworks that narrow and focus their field of view, to bracket and closely study phenomena of theoretical and/or practical interest, and to background (or, sometimes, entirely neglect) the residual. For example, in broad strokes, researchers might locate within rational, natural, and open systems traditions of organizational scholarship to focus chiefly on understanding the structure and function of organizations, their social and cultural make up, or their relations with environments (Scott & Davis, 2006).

A challenge for organizational researchers in education is that the breadth and interdependence of changes currently playing out within and among educational organizations calls for widening their field of view, and that holding to the common practice of narrowing, bracketing, and backgrounding risks partially understanding (or even misunderstanding) not only particular phenomena of theoretical or practical interest, but, also, the bigger story driving these broad, interdependent changes.

From the preceding challenge follows a need for organizational researchers in education to begin experimenting with the use of coordinated, complementary analytic frameworks to widen their field

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of view, to bracket and study more than they would have otherwise, and to consider carefully that which they have backgrounded. Indeed, that strikes us as precisely the premise of this issue on the micro-processes of new institutional theory: the need to disrupt organizational research in education, moving beyond an established tradition of research predicated on explaining looseness and sameness toward more plural perspectives that explore interdependence and variation within and among macro- and micro-levels of organization.

We take up that charge by exploring the coordinated use of complementary analytic frameworks to examine changing dynamics in public school districts. Our point of departure is our comprehensive review of the research literature on district dynamics published in the *Review of Research in Education* (Peurach, Cohen, Yurkofsky, & Spillane, 2019).[1] By way of summary, we argue that, over the past 30 years, a landscape once dominated by geographically-bounded, locally-controlled, and hierarchically-structured public school districts has evolved to include considerable variety: for example, open enrollment within and between districts, new categories of districts (e.g., state takeover districts, turnaround zones, and charter networks), and new forms of oversight (e.g., mayoral control, operating boards, and authorizing agencies).

Variation in the structure and governance of public school districts has emerged in interaction with changing dynamics in the environments of U.S. public education. The social contract has fundamentally changed: A public that once pressed for universal access to mass public schooling is now pressing for excellence and equity in students' educational opportunities, experiences, and outcomes. Over the past quarter century, this public press for excellence and equity has found expression in a steady stream of education policies that operate in accordance with different logics for effecting change in public school districts, among them logics of standards and assessments, research and evidence, autonomy and professionalism, and markets and choice.

These policies and their underlying logics are motivating and shaping change in the fundamental responsibility of districts, placing more emphasis on organizing and managing instruction—the day-to-day work of teachers and students in classrooms. After all, the classroom is where students either rise together or grow farther apart: in the thousands of hours that they spend with each other and with their teachers, as they progress from kindergarten to graduation.

In the era of access-oriented mass public schooling, the common practice was for districts to organize and manage instruction via a process of sorting, resourcing, and delegating. Central offices and schools sorted students into classrooms, academic tracks, and remedial/compensatory programs; resourced those instructional venues with teachers, textbooks, and other materials; and delegated to teachers the primary responsibility for organizing and managing instruction for the students assigned to them using the resources afforded them. This approach to organizing and managing instruction was well adapted to social and policy environments with strong expectations for schooling (i.e., venues to which students could go to learn) and uncertain expectations for education (i.e., what and how they would learn once there). It was also an approach to organizing and managing instruction that was complicit in weaknesses and inequities in educational opportunities, experiences, and outcomes for students in poverty and students of color, many of whom were sorted and segregated into underresourced schools in which they engaged in rote, didactic instruction focused on basic facts and skills.

In this new era of excellence and equity, this approach of sorting-resourcing-and-delegating is less tenable. New social, policy, and market pressures are pressing districts to redesign themselves as instructionally-focused education systems in which central offices and schools collaborate with teachers to organize and manage instruction in ways responsive to standards for student performance, evidence of "what works," the professional knowledge of teachers and leaders, and the

[1]The page constraints of this article preclude a fully annotated exposition of our review of the literature on the design and redesign of public school districts (Peurach, Cohen et al., 2019). Hence, we briefly summarize one of its primary lines of argument as a premise to our analysis of the coordinated use of complementary analytic frameworks, and we defer readers to the text itself, for a full exposition of the literature on which this summary and premise draw.

educational values of parents and communities. This is not a moment of convergence and isomorphism but, instead, a moment of divergence and variety, as both conventional and alternative public school districts explore possible paths forward.

Organizational scholars seeking to understand these new dynamics could narrow, bracket, and background: for example, by working from a rational systems perspective to focus exclusively on instructional effectiveness, or from a natural systems perspective to focus on developing new norms of diversity and equity, or from an open systems perspective to focus on managing relationships with changing environments. Yet doing so risks partially understanding (or even misunderstanding) these activities, as it would have researchers pulling apart precisely the interdependencies that districts are being pressed to manage. Moreover, doing so also misses the bigger story: the transformation of public school districts from engines of access-oriented mass public schooling into instructionally-focused education systems.

It is for these reasons that we see new dynamics in public school districts as a fruitful context in which to explore the coordinated use of complementary analytic frameworks, an alternative approach to organizational research that, we argue, is commensurate with the complexity of organizing and managing instruction in pursuit of excellence and equity. We begin by examining the limits and potential complementarity of two such frameworks: a "coupling framework" and a "systems framework." We continue by using these frameworks in combination to examine efforts in two districts to improve instructional quality and to reduce disparities: a suburban district and a charter network. We then reflect on the coordinated use of complementary frameworks for analyzing the transformation of public school districts as instructionally-focused education systems. We close by considering the implications of our exploration for the issues and arguments that motivated this special issue.

The coupling and systems frameworks: Limits and complementarity

As detailed next, the coupling and systems frameworks synthesize strands of organizational scholarship that afford particular perspective on changing dynamics in public school districts. The coupling framework places a primary focus on understanding relationships among educational environments, central offices and schools, and classroom instruction in response to the societal and policy press for excellence and equity. The systems framework places a primary focus on domains of work in central offices, schools, and classrooms integral to organizing and managing instruction to improve quality and to reduce disparities.

Though under active development by researchers seeking to extend their purchase, the analytic perspective of both frameworks remains limited in important ways. Even so, our analysis suggests that the strengths of each plays to the vulnerabilities of the other, which, we argue, suggests the possible advantage in bringing them into conversation to explore their complementarity and coordinated uses: the systems framework, to examine essential work processes of instructionally-focused education systems, and the coupling framework, to examine relationships and interdependencies among essential work processes.

The coupling framework

The "coupling framework" has roots in the development and application of the new institutional theory in education (Meyer & Rowan, 1978; Meyer, Scott, & Deal, 1981). This research had organizational scholars seeking to explain a ubiquitous "loose coupling" between formal structures in central offices and schools and the uncertain work of classroom instruction (Bidwell, 1965; Meyer & Rowan, 1978; Weick, 1976).

From this perspective, districts had long operated in environments that were institutionally strong and technically weak, ripe with culturally-valued and policy-elaborated formal structures for public schooling but absent agreed-upon educational goals, instructional approaches, or means of assessing outcomes (Meyer et al., 1981). Under these conditions, central offices and schools organized and

managed instruction in ways that focused most centrally on maintaining confidence and legitimacy among diverse constituents while, at the same time, dissociating legitimacy from instructional effectiveness and student outcomes. They did so by conforming to culturally-valued and policy-elaborated formal structures while buffering instruction from external intervention, observation, and evaluation.

The sustained press to improve education quality and to reduce disparities that we sketched in the introduction can be interpreted as a strengthening of the technical environments of U.S. public schooling (Meyer et al., 1981; Rowan & Miskel, 1999). Policies and reform activities within and beyond government are seeking to build agreement around educational goals, instructional approaches, and means of assessing outcomes, as well as to create resources, incentives, and sanctions that motivate and support the pursuit of these goals, approaches, and assessments in districts. The strengthening of technical environments, in turn, presses districts to organize and manage instruction not only to maintain their legitimacy but also, to ensure that efforts to maintain legitimacy align with efforts to improve educational effectiveness (Meyer, 2002; Spillane, Seelig, Blaushild, Cohen, & Peurach, 2019).

Efforts to examine the evolution of districts in response to strengthening technical environments have driven the continued development of new institutional theory among organizational researchers in education. The primary movement has been beyond explaining loose coupling as a ubiquitous, static, and adaptive pattern of instructional organization and management in established environments. Instead, the primary movement has been toward examining coupling as an active process of establishing and managing dynamic relationships among educational environments, educational organizations, and classroom instruction, as those environments are evolving in ways that associate legitimacy with educational quality and equity and as more varied patterns of instructional organization and management emerge in response.

Toward this end, one focus among organizational researchers has been to conceptualize and elaborate essential dimensions useful for describing and analyzing coupling processes in districts. As detailed in Table 1, we synthesize these dimensions as the coupling framework, which supports the examination of points/loci of coupling, agents of coupling, mechanisms of coupling, degrees of coupling, aims and rationale for coupling, and considerations for coupling.

Another focus among organizational researchers in education has been both (a) to leverage these dimensions to discern patterns of coupling as enacted in-and-among central offices, schools, and classrooms and (b) to examine these patterns in relation to changes in instructional quality and equity. For example, Diamond (2007, 2012) examined ways in which resource allocation among schools and collective sensemaking among teachers mediated the effects of accountability policy on instruction. He reported a general pattern of "partial recoupling" that featured a stronger influence of accountability policy on content than on pedagogy, with degrees of coupling varying among content areas and among high and low performing schools. A result, he argued, was that a weak coupling with pedagogy in low performing, high poverty schools interacted with the unequal distribution of resources to perpetuate didactic instructional approaches often associated with educational and social inequality.

However, while researchers have worked along these dimensions to describe and analyze coupling processes as *enacted*, they have paid comparatively less attention to ways in which coupling processes might be *designed* to improve quality and reduce disparities in students' educational opportunities and outcomes. Rather, the continued development of the coupling framework has proceeded largely absent close coordination with research advancing normative models of intentionally coupled, educationally effective districts. In research advancing coupling as a process, understandings of what central offices and schools could or should conceivably couple to improve quality and to reduce disparities, along what dimensions, and under what conditions remains comparatively undertheorized and underresearched.

Inattention to theories of (and designs for) coupling risks problems, especially in the practical application of developments in the coupling framework. Absent coordination with normative models of intentionally coupled, educationally-effective districts that have at least some basis in research, good faith efforts to improve quality and to reduce disparities by ascribing to a "tighter coupling is better" ethos among environments, organizations, and instruction risk inadvertently causing such

Table 1 Coupling framework: dimensions of coupling as an active process.[2]

Dimension	Focus of Analysis
Points/Loci of Coupling	Key relationships within-and-between environments (e.g., standards and assessments), central offices and schools (e.g., structures, roles, resources, and norms), and classroom instruction (e.g., content, instructional methods, and assessments) central to efforts to organize and manage instruction to improve quality and reduce disparities.
Agents of Coupling	Leaders and teachers as actively managing relationships among environments, central offices, schools, and classrooms.
Mechanisms of Coupling	Formal and social means by which agents are drawn into tighter coordination with each other and with educational environments, including routines and procedures, norms and values, and individual and collective sensemaking.
Degrees of Coupling	Assessments of the comparative weakness and strength of association among points/loci of coupling: e.g., "tightly coupled," "loosely coupled," "partially coupled," and "decoupled."
Aims/Rationale for Coupling	Reasoning and goals for managing relationships among points/loci of coupling: e.g., establishing controls, constraints, coordination, alignment, coherence, and/or independence among actors and actions, whether to maintain legitimacy, increase effectiveness, or manage uncertainty.
Considerations for Coupling	Issues of power, resource allocation, professional identity, and personal affect that bear on efforts to bring environments, central offices, schools, and classrooms into new relationships in ways that improve quality and reduce disparities.

negative effects as turmoil among teachers and leaders, epistemic distress, and educational triage, as well as tighter relationships among dimensions of schooling that have little or no bearing on educational quality and equity (Booher-Jennings, 2005; Hallett, 2010).

The systems framework

The "systems framework" is an analytic framework that we have been developing in a study of the evolution of six education enterprises as instructionally-focused education systems, details of which are in the following section (Peurach, Cohen, & Spillane, 2019; Peurach, Cohen et al., 2019; Peurach & Yurkofsky, 2018). The systems framework is, itself, a composite of frameworks and typologies originally developed through syntheses of multiple lines of scholarship on the transformation of districts as instructionally-focused education systems and further refined through our study of these six education enterprises.

As sketched in the introduction, from the 1950s to the present, growing evidence and concerns about educational weaknesses and inequities have led to a fundamental shift in societal ambitions for public education. Rather than focusing narrowly on access-oriented mass public schooling, societal ambitions have broadened to focus on ensuring excellent and equitable education for all students. These ambitions have been advanced through decades of federal, state, and local policy pressing for a fundamental shift in the organization and management of instruction: beyond loosely coupled systems characterized by sorting-resourcing-and-delegating toward instructionally-focused education systems in which central office and school leaders collaborate with teachers to improve educational quality and to reduce disparities.

With that, we have been developing the systems framework along three dimensions. The first focuses on developing an "organizational framework" featuring five core domains of work that are characteristic of instructionally-focused education systems. As summarized in Table 2, these include managing environmental relationships, building educational infrastructure, supporting the use of

[2]The coupling framework is a synthesis of organizational research and scholarship that examines coupling as an active process in (vs. a static characteristic of) organizations. For example, regarding *points of coupling*, see: Aurini (2012); Burch and Spillane (2005); Diamond (2007); Paino (2018); Spillane and Burch (2006); and Woulfin (2015). Regarding *agents of coupling*, see: Coburn (2004, 2005)); Coburn and Woulfin (2012); Paino (2018); Spillane et al. (2002); and Spain and Woulfin (2019). Regarding *mechanisms of coupling*, see: Coburn (2001, Coburn, 2004, 2005); Coburn and Woulfin (2012); Hallett (2010); Spillane, Parise, and Sherer (2011); Spillane et al. (2019); and Woulfin (2015). Regarding *degrees of coupling*, see: Diamond (2012) and Orton and Weick (1990). Regarding *aims/rationale for coupling*, see: Orton and Weick (1990); Rowan (1990); and Rowan et al. (1993). Regarding *considerations for coupling*, see: Diamond (2012); Hallett (2010); and Paino (2018).

Table 2 Organizational framework: domains of work characteristic of instructionally-focused education systems.[3]

Domain	Focus of Analysis
Managing Environments	The work of bridging, buffering, and reconciling among the many cultural, political, and technical influences bearing on how the district understands and pursues excellence and equity in instruction (e.g., family/community aspirations and values, federal and state policies, philanthropists' agendas, and educational research).
Building Educational Infrastructure	The work of devising and coordinating visions for instructional practice, formal instructional resources (e.g., instructional models, curricula, and assessments), and social instructional resources (e.g., norms, values, and relationships among students, teachers, and leaders).
Supporting Use of Infrastructure in Practice	The work of mobilizing and operationalizing infrastructure in day-to-day classroom work (e.g., by developing teachers' professional knowledge and capabilities through coordinated workshops, practice-based coaching and mentoring, and collegial learning; and by providing explicit guidance and coaching to students in the use of resources for individual and collaborative learning).
Managing Performance	The work of assessing and advancing positive interdependence in the work of managing environments, building infrastructure, and supporting use, both for continuous improvement (as via evidence-driven design, implementation, and evaluation) and for accountability (as via the use of evidence and standards to assess instructional processes and outcomes).
Developing and Distributing Instructional Leadership	The work of establishing formal and informal leadership roles, teams, and structures with responsibility for performing, coordinating, and managing all of the preceding.

infrastructure in practice, managing performance for continuous improvement and accountability, and developing and distributing instructional leadership.

The second dimension focuses on developing a "systems typology" detailing patterns in the distribution of these domains of work among central offices and schools (Peurach, Cohen et al., 2019; Peurach, Yurkofsky, & Sutherland, 2019). As summarized in Table 3, this typology includes managerial education systems, market-driven education systems, federated education systems, and networked education systems. We advanced the systems typology as an interpretive framework useful for tracking between (a) evidence of the organization of these five core domains of work and (b) theories of action and design principles that underlie their organization. We also advanced the systems typology as useful for analyzing district redesign efforts in which multiple theories of action are being pursued simultaneously.

Still in the early stages of development (and a keen focus of future work), the third dimension is an "instructional framework" that will elaborate core domains of work that (a) are central to teachers' efforts to organize and manage classroom instruction, (b) are suggested by theory and research to be integral to improving quality and reducing disparities, and (c) capture challenges and opportunities in responding to individual students, families, and communities. Initial efforts have focused on the development of an "instructional decision-making typology" that characterizes ways that efforts of central offices and schools to organize and manage instruction are mediated by the knowledge, beliefs, and values of teachers as they

[3]The organizational framework is a synthesis of leading basic and translational research aimed at identifying core domains of work in central offices and schools that appear to be integral to organizing and managing instruction with the aims of improving educational quality and reducing disparities (Bryk, Sebring, Allensworth, Luppescu, & Easton, 2010; Childress, Elmore, Grossman, & Johnson, 2007; Cobb, Jackson, Henrick, & Smith, 2018; Forman, Stosich, & Bocala, 2017; Fullan & Quinn, 2015; Honig, Copland, Rainey, Lorton, & Newton, 2010; Johnson, Marietta, Higgins, Mapp, & Grossman, 2014). Each of these domains of work, in turn, is itself a primary focus of research and scholarship. For example, regarding *managing environmental relationships*, see: Honig and Hatch (2004) and Spillane (2009). Regarding *building educational infrastructure*, see: Hopkins, Spillane, Jakopovic, and Heaton (2013); Leithwood, Louis, Anderson, and Wahlstrom (2004); and Peurach and Neumerski (2015). Regarding *supporting the use of educational infrastructure in practice*, see: Cohen (2011) and Cohen, Raudenbush, and Ball (2003). Regarding *managing performance* for improve and accountability, see: Boudett, City, and Murnane (2013); Bryk, Gomez, Grunow, and LeMahieu (2015); and Mintrop (2016). Regarding developing and distributing instructional leadership, see: Elmore (2000) and Spillane (2006).

Table 3 Systems framework: typology of instructionally-focused education systems.[4]

System Type	Distinguishing Characteristics
Managerial	• Theory of action: Faithful use of a standard, high quality educational approach district-wide will ensure consistency and coordination in instruction in and among schools and, with that, improve educational opportunities and outcomes on average while reducing disparities. • Distribution of work: Characterized by a standard educational approach developed by the central office and administered with fidelity in schools.
Market-Driven	• Theory of action: Reducing central office control, increasing school autonomy, and introducing market competition will improve quality and reduce disparities by stimulating school-level entrepreneurship and innovation responsive to families, communities, and policy. • Distribution of work: Characterized both by (a) the central office establishing or approving a portfolio of schools, setting enrollment targets, and setting performance targets and (b) responsibility in schools for devising differentiated educational approaches, with families and communities choosing among schools that are aligned with their educational values and aspirations.
Federated	• Theory of action: Knowledge, capabilities, and values in schools and their communities are essential resources for organizing and managing instruction in ways that improve quality and reduce disparities, with the central office providing supports to mobilize school-specific knowledge, capabilities, and values while structuring parameters that ensure a level of district-wide coherence. • Distribution of work: Characterized by efforts to balance standardization and differentiation with (a) the central office establishing common components of educational infrastructure district-wide and (b) schools adapting, extending, and using centrally-established components to respond to the educational aspirations, values, and needs of their particular students, families, and communities.
Networked	• Theory of action: Coordinating district-wide educational conventions with school-level adaptation creates potential both (a) to elevate the quality of routine educational work consistently across schools and (b) to reduce disparities in educational outcomes by addressing particular educational needs and problems experienced by schools, classrooms, and students. • Distribution of work: Characterized by efforts to balance standardization and differentiation with (a) the central office establishing a comprehensive, district-wide educational approach; (b) schools enacting the educational approach in ways that balance district-wide educational conventions with local adaptation and problems solving; and (c) positive adaptations and solutions fed back to the central office, incorporated in the district-wide educational approach, and used by other schools throughout the district.

Table 4 Instructional decision-making framework: patterns in teachers' engagement with educational infrastructure.[5]

Pattern	Distinguishing Characteristics
Selecting and Combining	Teachers (a) sample components of educational infrastructure developed by the central office and/or schools and (b) combine those components with various other resources that they create or find on their own.
Implementing and Redirecting	Teachers (a) use educational infrastructure as directed by the central office and/or school whether it aligns with their preexisting beliefs and practices or not while (b) redirecting those personal resources toward other areas of their work in which they have more discretion.
Resisting	Teachers purposefully defying instructional guidance from the central office and schools and choosing not to use educational infrastructure as designed.

organize and manage their day-to-day work (Blaushild, 2019). As summarized in Table 4, the instructional decision-making typology focuses on three patterns in teachers' engagement with educational infrastructure: selecting and combining, implementing and redirecting, and resisting.

Building on prior research, a central tenant of the systems framework is that coordinating the work of organizing and managing instruction as distributed among central offices, schools, and classrooms moves districts toward functioning as coherent, instructionally-focused education

[4]This systems typology was initially developed in the context of a comprehensive review of the literature on district redesign since mid-1990s (Peurach, Cohen et al., 2019). It was further elaborated in case studies of four of the six enterprises in our study (Peurach, Cohen, Spillane et al., 2019; Peurach, Yurkofsky, et al., 2019).

[5]As developed thus far, an instructional decision-making framework has been derived inductively through analysis of teachers' instructional practice in the public school districts partnering in our study (Blaushild, 2019).

systems. Such education systems, in turn, are more able to support all teachers and students in working together in new, more effective, and more equitable ways. However, in developing the systems framework, we have yet to conceptualize and systematically explore processes for coupling the organization and management of instruction in-and-among central offices, schools, and classrooms, nor variation in coupling processes in-and-among different system types.

The comparative inattention to coupling processes brings risks, both in the continued development of the systems framework and in the work of reforming districts. Whether as a matter of habit or strategy, it is entirely possible for districts to attend to new domains of work symbolically with the aim of maintaining legitimacy by signaling a response to the societal and policy press to improve quality and reduce disparities while continuing to maintain a loose coupling among those domains of work. Absent attention to coupling processes, it is difficult to discriminate between earnest efforts to organize and manage instruction and the status quo; districts engaged in "ritualized rationality" and enacting "technical ceremonies" that have symbolic value but that have weak (if any) relationship with fundamental changes in classroom instruction (Peurach, Penuel, & Russell, 2018; Yurkofsky, 2017).

Limits and potential complementarity

Thus, as synthesized earlier, both the coupling and systems frameworks have potential to provide new insights into the transformation of public school districts into instructionally-focused education systems. Though limited in their individual perspectives, the analytic advantage of each plays to the analytic limits of the other. In scholarship advancing the coupling framework, the processes of coupling have been a primary focus of analysis, though absent commensurate attention to essential domains of work in central offices, schools, and classrooms as a focus of coupling processes. In scholarship advancing the systems framework, essential domains of work in central offices, schools, and classrooms have been a primary focus of analysis, though absent commensurate attention to coupling processes that ensure coordination among them. That, we argue, suggests potential advantage in their coordinated use in examining and comparing the transformation of public school districts into instructionally-focused education systems.

Exploring the coordinated use of the coupling and systems frameworks

We continue by exploring the coordinated use of the coupling and systems framework to examine instructional improvement efforts in two public school districts. Our analysis draws from our comparative case study of efforts in six educational enterprises to improve the organization and management of elementary literacy instruction, with specific attention to educational opportunities and outcomes for poor and minority students. The enterprises were sampled for variation in size, governance, historical roots, and approaches to organizing and managing instruction, as well as to support comparisons between public and nonpublic enterprises. They include an urban district serving primarily students of poverty and color; a suburban district increasing in socioeconomic, racial, and ethnic diversity; a charter school network as an alternative district serving high poverty communities; the International Baccalaureate, a nonprofit enterprise increasingly supporting high poverty districts and schools; Association Montessori International, a nonprofit enterprise with historical roots serving children of poverty; and an urban Catholic diocese committed to serving children of poverty.

Data collection spanned the central office and two schools in each of the six educational enterprises. It included a total of 76 observations and 241 interviews, complemented by document and artifact collection. Analysis included two rounds of deductive and inductive coding, the first using an analytic framework with which the study was originally conceptualized (Cohen, Spillane, & Peurach, 2018) and the second using the systems framework previously detailed.

For purposes of this analysis, we focus on the Suburban Public School District (SPSD) and the Charter Public School District (CPSD). We do so for two reasons. The first is that page constraints

preclude attention to all six enterprises. The second is that comparisons among SPSD and CPSD are particularly illustrative. As detailed in preceding analyses, each operates in close accord with a different system type: SPSD as a federated system and CPSD as a networked system (Peurach, Cohen, Spillane et al., 2019; Peurach, Yurkofsky et al., 2019; Spillane et al., 2019). With that, each is pursuing a different approach to organizing and managing instruction with a different theory of action, design principles, distribution of work, and points/loci of coupling. Another preceding analysis associated different patterns of instructional organization and management in SPSD and CPSD with different, dominant patterns of instructional decision-making among teachers: a pattern of selecting-and-combining in SPSD and of implementing-and-redirecting in CPSD (Blaushild, 2019).

In examining SPSD as a federated system and CPSD as a networked education system, our aim is to illustrate the coordinated use of the systems and coupling frameworks. These illustrations then become grist for subsequent reflection on the coordinated use of complementary frameworks in analyzing the transformation of public school districts as instructionally-focused education systems.

Case 1: Suburban Public School District

SPSD is a conventional public school serving nearly a dozen schools. Since the 1990s, the racial, ethnic, and socioeconomic composition of SPSD has been shifting. Historically, SPSD had served a majority white, middle/upper-middle class student population. Currently, SPSD serves nearly 12,000 students: 25% Black/African American, 50% Hispanic/Latino, 20% White, and 5% from other racial/ethnic groups. In SPSD, 10% of the students are English language learners, 15% have learning or physical disabilities, and over 55% are economically disadvantaged.

Shifting demographics, increasing policy pressure to improve outcomes and reduce disparities, and the hiring of an instructionally-focused superintendent interacted to drive shifts in instructional organization and management from an approach that featured a weak central office and considerable autonomy in schools to a coherent, district-wide approach to elementary literacy. Primary goals included: improving the quality of instruction, student learning, and student achievement; reducing disparities in achievement and disciplinary actions as correlated with race, class, disability, native language, and neighborhood; and doing the preceding in ways responsive both to state policies and to the diversity of students, families, and the community.

Extending prior analyses, we continue by using the systems and coupling frameworks to examine SPSD as a federated education system (Peurach, Cohen, Spillane et al., 2019; Peurach, Yurkofsky, & Sutherland, 2019). The theory of action is that knowledge, capabilities, and values in schools and communities are essential resources for organizing and managing instruction in ways that improve quality and reduce disparities. A federated system balances differentiation and standardization, with the central office providing supports aimed at leveraging school-specific knowledge, capabilities, and values while also structuring parameters aimed at ensuring district-wide quality and coherence. Working within these parameters, schools use, adapt, and extend centrally-provided supports in responding to their students, families, and communities.

The central office

In SPSD, one core responsibility of the central office was to manage environments with a specific focus on a key point/locus of coupling: the relationship between community and policy expectations for improvement on the one hand and SPSD's own agenda for improvement on the other. The chief agent responsible for managing this relationship was the superintendent. The chief mechanism was a participatory strategic planning process that engaged community members, teachers, school and district leaders, and the school board, the product of which was a "strategic road map" that served both as a symbol of consensus and a tool for coordinating district-wide improvement efforts. The strategic road map represented a sort of "differentiated coupling": comparatively tight coordination

with community voices and state policies pressing for attention to issues of diversity, equity, and inclusion, crossed by comparatively loose coordination with state accountability policies. Key considerations included state reports that identified inequities in disciplinary actions in SPSD, as well as a local "opt out movement" in opposition to state accountability assessments.

Central office efforts to operationalize the strategic road map included building educational infrastructure with key points/loci of coupling being relationships among its components. These components included a design for elementary literacy instruction, formal resources (e.g., materials, instructional routines, pacing guidelines, and assessments), and social resources (e.g., training aimed at developing teachers' knowledge, commitments, and values). The goal was a tight coupling in order to establish a coherent, high quality instructional approach district-wide.

Due in part to limited central office capabilities for instructional leadership, the mechanism for achieving a tight coupling among components was to contract with a commercial provider that packaged these components into a coordinated instructional program such that the commercial provider, itself, served as the primary agent of coupling. Considerations for selecting the commercial provider included past experience with the instructional program among several SPSD schools and many teachers; proximity to the commercial provider, such that other area districts also using the program served as a labor pool from which to recruit trained and experienced teachers; and efforts by the commercial provider to align the instructional program both with current research on elementary literacy and with state performance standards.

In many ways, the educational infrastructure was, itself, designed for use: a comprehensive, tightly coupled, standards-aligned instructional program that included detailed instructional designs, routines, materials, and guidance to support direct application by teachers. In its own efforts to support its use, the central office sought to manage a primary point/locus of coupling (and a fundamental tension): the relationship between standardization and differentiation in schools' use of this educational infrastructure.

This contributed to an approach to coupling that was simultaneously tight and loose, one that balanced (a) commitment to the use of a centrally-established educational infrastructure to establish and maintain district-wide coherence and (b) expectations that schools would adapt and extend that infrastructure in response to their students, families, and communities. Considerations motivating this approach included SPSD's diversifying community; a strategic road map that prioritized attention to diversity, equity, and inclusion; and a legacy culture in SPSD that valued school autonomy and teachers' professional knowledge and capabilities.

With that, the central office leveraged two sets of mechanisms. To support coherent use, the central office constructed multiple supports to establish leaders' and teachers' commitments. These included developing the instructional leadership capabilities of principals, organizing them as a professional learning community, and engaging them in central office efforts to build educational infrastructure; demonstrating respect for schools' prior experiences (and teachers' existing knowledge and capabilities) in devising educational infrastructure; and focusing recruitment efforts on teachers trained in and experienced with that educational infrastructure.

To support adaptive use, the central office constructed multiple supports to increase teachers' and leaders' regard for students. These included contracting with an external provider to support moving toward more student-centered instruction; contracting with another external provider to support all staff in confronting biases and in developing cultural responsiveness; and launching an inclusive, participatory process to develop a new student code of conduct anchored in principles of restorative justice.

Schools and classrooms

In SPSD schools, a core domain of work was to adapt and extend a centrally-adopted educational infrastructure with a key point/locus of coupling being the relationship between ambitions for (a) maintaining school-level instructional coherence and (b) addressing the educational needs and

values of schools' diversifying students, families, and communities. The goal, again, was a combination of tight and loose coupling with the aim of balancing school-level coherence and student/family/community alignment.

The primary agents responsible for managing this relationship were teachers, working both collegially, organizing and managing instruction at the school level, and individually, organizing and managing instruction in classrooms. One consideration that bore on the distribution of instructional leadership among teachers was the prior knowledge of the centrally-adopted instructional program among a critical mass of experienced teachers and, with that, a shared commitment to maintaining coherence while also adapting and extending.

In addition to support provided by the central office, mechanisms supporting this work included formal and informal structures internal to schools. These included grade level and content area teams as formal organizational routines in which to analyze data and assessments, process classroom experiences, and devise shared resources. They also included teachers' voluntary use of lunch periods and overlapping planning periods as informal routines through which to collaborate in organizing and managing instruction.

Mechanisms supporting this work went further to include drawing on resources in schools' environments. These included school-selected consultants and coaches who provided ongoing professional development both aligned with the centrally-adopted instructional program and adapted to the learning needs of schools' teachers; engagement with families and the community aimed at understanding their educational values and building shared understandings of educational approaches; and leveraging online communities for sharing instructional materials.

Primary responsibility for (and discretion in) the use of this adapted, extended educational infrastructure rested with individual teachers in their own classrooms. Paralleling central office supports for schools, school-level efforts to support classroom-level use continued to center on managing the relationship between infrastructure as designed-and-adapted and the varied learning needs and interests of students. The goal was for a fluid coupling with teachers as the key agents responsible for making in-the-moment pedagogical, grouping, and assessment decisions to maintain students' engagement and to support their success.

In addition to those provided by the central office, key school-level mechanisms supporting teachers in managing this relationship began with the same mechanisms described earlier as supporting collegial and individual adaptation of educational infrastructure. These mechanisms went further to include multiple, coordinated approaches for grouping students between and within classrooms, some aimed at reducing variation in students' needs and interests and others aimed at increasing diversity; classroom observation and support from the principal, internal and external instructional coach, and in-class special education teachers; and teachers' own knowledge and beliefs about students, content, and instruction.

The central office and schools: Managing performance

In both the central office and schools, performance management centered on examining a key point/locus of coupling: the relationship between (a) the strategic road map for district-wide improvement and (b) students' instructional experiences and outcomes. The aim was for a tight coupling, such that priorities established in the strategic road map were integral to students' daily life in classrooms. Key agents of coupling (and key mechanisms for coordinating performance management with all of the other work of SPSD) were two intersecting leadership teams: the central office instructional leadership team and the professional learning community of school principals (which included the superintendent and chief academic officer). Key mechanisms for examining this relationship included classroom observations by central office and school leaders, state-required teacher evaluations, and state assessment results and disciplinary reports.

Though student performance on state assessments was a keen focus of central office and school leaders, it was not a primary driver of improvement efforts. Rather, performance management was

more formative than summative, in that it focused chiefly on supporting the improvement of instructional organization and management as distributed and differentiated among individual schools and classrooms. Considerations favoring formative over summative evaluation included honoring consensus built during the strategic planning process that deemphasized policy-driven accountability mechanisms, as well as maintaining a culture of mutual trust and respect among teachers and leaders as a sort of "glue" that held together the constellation of SPSD's improvement efforts.

Case 2: Charter Public School District

CPSD was established in the late 1990s as an alternative public school district. In contrast to the geographic boundaries and neighborhood attendance zones of conventional districts, CPSD operates over 30 elementary, middle, and high schools distributed across multiple states, with a division of its central office operating in each state. CPSD currently serves more than 12,000 students, the large majority of whom are from high poverty communities and from historically marginalized racial and ethnic groups (in some schools, over 90%).

From its founding, CPSD has placed a keen focus on supporting students of poverty and color in performing at high levels on state accountability assessments. Policy shifts in the states in which CPSD operates triggered improvement initiatives in CPSD aimed at pursuing more ambitious instruction and outcomes for these students. Chief among them was the embrace of the Common Core State Standards and the revision of accountability assessments, which altered the terms by which CPSD served historically marginalized students and the metrics it used to establish its legitimacy as an alternative public school district.

Extending prior analyses, we continue by using the systems and coupling frameworks to examine CPSD as a networked education system (Peurach, Cohen, Spillane et al., 2019; Peurach, Yurkofsky et al., 2019). The theory of action is that coordinating the consistent enactment of a comprehensive, district-wide educational approach with selective, school-level adaptation creates potential to both (a) raise educational quality across schools and (b) address particular educational needs and problems experienced by schools, classrooms, and students. As with a federated system, a networked system seeks to balance standardization and differentiation: The central office establishes a comprehensive, district-wide educational approach, and schools enact that approach in ways that balance the maintenance of district-wide conventions with local adaptation and problem-solving. The difference is that, in a networked system (in contrast to a federated system), positive adaptations are fed back to the central office, incorporated in the district-wide educational approach, and used by other schools throughout the district.

The central office

As with SPSD, the central office of CPSD is similarly responsible for managing the relationship between its priorities for improvement and external environments. In contrast with SPSD, the central office of CPSD sought a tight coupling between state standards and assessments and its priorities for improvement. That, in turn, meant CPSD pursued a looser coupling between other elements of the environment (e.g., community expectations) and its improvement efforts. Considerations in pursuing this mix of tight and loose coupling included: (a) a dramatic decline in test scores after the states switched to a Common Core aligned assessment, which resulted in an aggressive change-management process aimed at increasing the rigor of instruction to meet the expectations of these new assessments; (b) the possibility of new Common Core-aligned standards serving as resources for addressing ongoing challenges with the college and career readiness of CPSD graduates (as Common Core standards were, themselves, aligned with ambitions for college and career readiness); and (c) a desire to coordinate the improvement agenda with other internal priorities (including issues of teacher retention).

Rather than starting from scratch, central office efforts to operationalize these priorities involved building on existing educational infrastructure with key points/loci of coupling again being relationships among its central components: the central office's enhanced, Common Core-aligned vision for elementary literacy instruction; formal resources (e.g., curricular materials, daily lesson plans, assessments); and social resources (e.g., norms and expectations about teaching and learning). In establishing a tight coupling among these components, the chief *agents* were also the chief *mechanisms*: the distribution of instructional leadership among a highly elaborated central office staff that (among other things) was responsible for continuously developing and refining the formal resources to align closely with standards and assessments. A key consideration was striking the right balance between being aligned with state expectations and the possibility of experiencing adverse effects from being too test-focused.

The central office, schools, and classrooms

In contrast with SPSD's simultaneous tight/loose relationship between a centrally-developed educational infrastructure and its use in schools and classrooms, the central office of CPSD worked closely with schools to support the use of centrally-developed educational infrastructure to maintain a tight coupling with instructional practice. Key coupling mechanisms included the addition of detailed lesson plans as a key component of a centrally-developed educational infrastructure in order to facilitate the use of that infrastructure in practice, along with the establishment of a number of system-wide organizational routines. For example, CPSD enacted a weekly, coach-supported process for teachers to further elaborate the centrally-developed lesson plans to fit with their classroom contexts, along with frequent observation and feedback cycles between teachers and coaches, principals and coaches, and superintendents and principals.

Key coupling mechanisms went further to include distribution of (and investment in) instructional leadership roles in the central office and schools. Doing so involved carving out time in the school day for frequent professional development. It also involved developing school-level operations positions that assumed responsibility for the administrative work of schools, thus liberating principals to focus on supporting infrastructure use.

Finally, key coupling mechanisms stretched beyond CPSD itself. This included partnering with other charter networks to create teacher and leadership certification programs to ensure that teachers had the training needed to enact the educational infrastructure in instruction and that leaders were prepared to support them. It also included outreach to families to build understanding and commitment around centrally developed educational infrastructure.

With that, responsibility for managing the relationship between a centrally-developed educational infrastructure and classroom instruction was distributed across many different agents in the central office and schools, with these agents again serving as mechanisms. The central office was responsible for developing routines, resources, structures, and capacities that were then used in schools by principals and coaches (with the support of central office leaders) as they supported teachers' use of the educational infrastructure. With this approach, one consideration was balancing ambitions for rigor across classrooms while simultaneously allowing for some flexibility among teachers to adapt lesson plans to suit students' needs and their own strengths.

Schools

In contrast to SPSD, schools' responsibility for adapting and extending a centrally-developed infrastructure was more limited with the key points/loci of coupling being the relationship between the centrally-developed infrastructure and school-level priorities and student needs. The aim was for schools to maintain the rigor and coherence of centrally-developed educational infrastructure while also making more narrow adaptations or additions to that infrastructure to accommodate local needs and priorities.

As with SPSD, the work of adapting and extending centrally-developed educational infrastructure played out at both the school and classroom level with leaders and teachers as agents. For example, at the school level, principals made decisions about supplemental instructional activities, such as scheduling additional time for guided reading instruction. Individual teachers, in turn, had opportunities to make small adjustments to lesson plans to differentiate instruction to meet classroom-level needs. One key mechanism for managing teachers' efforts was planning routines and observation feedback cycles through which they received support from school-level coaches and principals. Another was central office guidance that set expectations for maintaining high standards for instruction.

The central office and schools: Managing performance

In CPSD, responsibility for performance management was shared among the central office and schools. As in SPSD, a primary aim of performance management was to strengthen key points/loci of coupling in the district's approach to organizing and managing instruction: specifically, the relationship between (a) CPSD's improvement priorities, (b) centrally developed and school-adapted educational infrastructure, and (c) the use of educational infrastructure in classrooms.

Different from SPSD, performance management in CPSD coordinated both summative and formative evaluation to support network-wide improvement, a key consideration being that CPSD's legitimacy as an alternative public school district is linked tightly to generating evidence of the academic success of its students. Key mechanisms for evaluating and maintaining the relationship between the organization and management of instruction and student outcomes included the embedding of frequent student assessments in the educational infrastructure; the ongoing collection of observational data; and weekly data meetings in which central office and school leaders analyze these data to identify gaps in student performance. One mechanism for improving the relationship between the organization and management of instruction and student outcomes was to use these analyses to support teachers in using supplemental instructional opportunities to address performance gaps. Other key mechanisms included constructing additional, targeted coaching and professional development opportunities for teachers and revising educational infrastructure as developed centrally and adapted and extended in schools.

Characteristic of a networked system, performance management in CPSD involved a reciprocal relationship between the central office and schools, with school-level adaptations and extensions serving as resources for the central office in continuously improving the network-wide instructional approach. This included identifying successful experiments in schools (e.g., the use of guided reading in upper grades; the introduction instructional management routines) so that they could be scaled up consistently throughout the network. It also included engaging some schools as incubators in more comprehensive efforts by the central office to redevelop key components of its educational infrastructure, with teachers and leaders in these schools collaborating with central office designers in using, evaluating, refining, and extending infrastructure components that are under active development.

Reflecting on the coordinated use of complementary frameworks

Reflecting on our analyses of SPSD and CPSD, our view is that the coordinated use of the coupling and systems frameworks supported deeper analyses of instructional organization and management within and across cases than either framework would on its own. By leveraging the coupling and systems frameworks in coordination, we were able to work within and between cases to surface and compare the distribution of responsibilities for organizing and managing instruction among central offices, schools, and classrooms; underlying theories of action; key points/loci of coupling; and processes for managing those key points/loci of coupling.

In further support of our view, imagine not having read the preceding analyses of SPSD and CPSD but, instead, having access to the raw data from our study: the pile of interview transcripts,

field notes, documents, and artifacts. Then, imagine using the coupling and systems frameworks independently to answer the following question: How are SPSD and CPSD managing relationships among educational environments, educational organizations, and classroom instruction with the goals of improving quality and reducing disparities in students' educational opportunities and outcomes?

In the case of the coupling framework, this thought exercise is purely hypothetical. Using only the coupling framework, one might begin with the assumption that SPSD and CPSD are operating amid legacy institutional environments and strengthening technical environments; experiencing a press to increase educational effectiveness in coordination with (and as a means of) maintaining legitimacy; seeking to move beyond a loose coupling between environments and organization (on the one hand) and instruction (on the other); and approaching the recoupling of environments, organizations, and instruction as a dynamic process.

Beyond that, using only the tools in the coupling framework as represented earlier, it is not at all clear where to begin analyzing the raw data on SPSD and CPSD, nor why or how to best proceed. At first glance, many things in the central offices, schools, and classrooms of SPSD and CPSD appear to be working in relation to many other things in ways that are sometimes unidirectional, reciprocal, and recursive. Moreover, many of these relationships appear to be managed by multiple agents, using multiple mechanisms, with multiple aims, in response to multiple considerations—with each of these "multiples" itself a possible point/locus of coupling and a candidate for analysis. And then there are more things that do not appear to be operating in relation to each other or to anything at all.

Indeed, the complexity of efforts in SPSD and CPSD to organize and manage instruction to improve quality and reduce disparities appears to overwhelm the analytical tools available in the coupling framework. That suggests the need for a complementary framework or frameworks that would provide tools and rationale for explicating underlying goals and designs for organizing and managing instruction, for identifying points/loci of coupling central to those designs, and for analyzing those relationships. Frameworks of this sort would move analysis beyond a straightforward "tighter is better" assumption of coupling to more nuanced analyses of intentionally differentiated patterns of coupling within districts.

In the case of the systems framework, by contrast, this thought exercise is not at all hypothetical but instead, one in which we have engaged deeply. In our experience, the systems framework has provided tools useful for precisely the type of analysis described earlier. In previously published work, we have illustrated the usefulness of the systems framework for describing and analyzing (a) the relationship between SPSD and CPSD and their environments (Peurach, Cohen, Spillane et al., 2019; Spillane et al., 2019), (b) patterns of instructional organization and management in SPSD and CPSD (Peurach, Yurkofsky et al., 2019), and (c) patterns in teachers' instructional decision-making in relation to patterns of instructional organization and management (Blaushild, 2019).

Across these earlier analyses, we represented SPSD and CPSD as enacting and coordinating new domains of work in central offices and schools in ways characteristic of different system types, and we represented the relationship between their work and teachers' work in classrooms. We argued that these representations were evidence of SPSD and CPSD evolving beyond engines of mass schooling toward instructionally-focused education systems.

Even so, these analyses were partial in that they lacked an interrogation of the processes by which SPSD and CPSD actively managed these relationships and interdependencies: that is, description and analysis of who managed key relationships, how, and why. A primary reason is that the systems framework, as developed thus far, lacks the essential analytical tools of the coupling framework: that is, tools that guide the description and analysis of key points/loci of coupling, as well as agents, degrees, mechanisms, and considerations of-and-for coupling. With the absence of such tools, the systems framework is more useful in developing a static blueprint of districts as instructionally-focused education systems and less useful for developing a dynamic model of how districts aim to function as instructionally-focused education systems.

Constructed via the coordinated use of the systems and coupling frameworks, it is the richness of the accounts of SPSD and CPSD provided here as compared to our earlier accounts that supports our view that the coordinated use of these two frameworks enables deeper analysis of the transformation of public school districts as instructionally-focused education systems than does either framework on its own. Our prior analyses using only the systems framework enabled us to *describe* SPSD and CPSD as exhibiting characteristics of instructionally-focused education systems. The incorporation of the coupling framework enabled us to analyze how SPSD and CPSD *function* as instructionally-focused education systems.

By design, our accounts of SPSD and CPSD are illustrative of the potential advantage in the coordinated use of complementary analytic frameworks to analyze instructionally-focused education systems. Even so, they are not exhaustive. While more comprehensive than earlier accounts, the accounts of SPSD and CPSD provided here leave open for future analyses the essential matter of whether work in these districts is advancing them toward societal and policy ambitions for excellence and equity: that is, whether they are making progress in improving the quality of (and reducing disparities in) students' educational opportunities, experiences, and outcomes. After all, press for excellence and equity is a fundamental driver of the transformation of districts from engines of mass public schooling to instructionally-focused education systems.

Indeed, all of the preceding would benefit from explicit coordination with quality and equity frameworks useful for examining whether and how new ways of working in districts are improving students' educational opportunities and outcomes in ways valued by (and that fully engage) diverse families, communities, professionals, and other stakeholders. Our development and use of the coupling and systems frameworks suggests that developing and using quality and equity frameworks would benefit from three things: synthesizing broad traditions of organizational and educational research into parsimonious interpretive frameworks; considering the breadth and limits of the analyses that these frameworks afford; and constructing a rationale establishing the complementarity of these frameworks with other analytic frameworks.

Implications for advancing organizational research in education

Our analysis adds weight to issues and arguments raised in the introduction to this issue of the PJE calling for new approaches to organizational research that provide keener insight into variation in micro-level responses to macro-level environmental dynamics. As set out in the introduction, the premise of the issue is that changing relationships among macro-level policy activity and micro-level organizational activity call for reconsidering the use of new institutional theory in educational research. Where new institutional theory initially focused on explaining local sameness in pursuit of legitimacy, changing macro/micro relationships over the past several decades are pressing for the further development of the micro-processes of new institutional theory to examine local variety in response to macro shifts.

Our analysis elaborated this premise. We noted initially that new institutional theory sought to examine sameness in *the organization and management of instruction*: a loose coupling between the formal structure of central offices and schools and the behavioral structure (i.e., the instructional work) of teachers and students in classrooms. We noted also that changing macro/micro dynamics call for ways to examine variety in new approaches to the organization and management of instruction in districts, with legitimacy now bound up with excellence and equity in students' educational opportunities, experiences, and outcomes.

With that as the elaborated premise, we experimented with coordinating the use of developments in new institutional theory with complementary developments in other traditions of organizational scholarship in education to widen our field of vision on the work of organizing and managing instruction. At the same time, we recognized the need to further incorporate analytic perspectives focused specifically on quality and equity. Throughout, we explained how the pursuit of stand-alone frameworks would have left central matters of instructional organization unexplored and

unaccounted for. In our other work, we have argued further about the possibility of using this approach to compare education system-building efforts as they play out in other national contexts (Peurach, Cohen, & Spillane, 2019; Spillane, Peurach, & Cohen, 2019).

While our analysis suggests both potential and advantage in taking up challenges raised in the introduction of this issue, leveraging these advantages will be no simple matter. Conventional approaches to organizational research centered on narrowing, bracketing, and backgrounding can still be both pragmatic and useful in understanding educational phenomena of interest. Moreover, the coordinated use of complementary frameworks is a heavy lift in terms of scholarship, data collection, analysis, and reporting.

The bigger matter, though, is that these conventional and alternative approaches rest on fundamentally different world views. Conventional approaches to organizational research in education assume complex systems in which key levels and elements of educational enterprises are nearly independent in the short term and only weakly interdependent in the long term. Assumptions of near-independence enables researchers to isolate and examine parts of these enterprises while paying comparatively scant attention to the broader system (Weick, 1976). Herbert Simon (1996) famously generalized this premise as the "empty world hypothesis": In many complex systems, "most things are only weakly connected with most other things; for a tolerable description of reality, only a tiny fraction of all possible interactions needs to be taken into account" (p. 207).

But, again, with the transformation of public school districts from loosely coupled systems supporting universal access into instructionally-focused education systems pursuing excellence and equity and with organizational ubiquity giving way to organizational variety, assumptions of near-independence appear less tenable. Indeed, the same macro-level dynamics pressing for the transformation of public school districts are pressing for an alternative approach to organizational research that supports the examination of multiple components and domains of work, the interdependencies and relationships among them, and their interactions with macro-level contexts. This alternative approach, in turn, would rest on an alternative general premise, one that we described in our earlier work as a "full world" hypothesis. This full world hypothesis holds that, "in considering education as a complex system, many things are strongly connected to many other things; for a tolerable description of reality, a large number of all possible interactions needs to be taken into account" (Peurach, 2011, p. 17).

In our view, surfacing and addressing differences in world views—in the paradigmatic assumptions of organizational researchers in education—is fundamental to understanding the bigger organizational story playing out under our feet: the transformation of U.S. public school districts from engines of access-oriented mass public schooling into instructionally-focused education systems.

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